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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/502,353

09/16/2004

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EXAMINER

TRAN, DZUNG D

ART UNIT

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2613

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/502,353	<b>Applicant(s)</b> BISSON ET AL.	
	<b>Examiner</b> Dzung D. Tran	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 11-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-13 and 17-~~19~~ rejected under 35 U.S.C. 102(b) as being anticipated by Sharma et al. US patent no. 5,717,795.

Regarding claim 11, Sharma discloses in Figures 8-10, a communications node (61-66) of a backed up ring optical telecommunications network, comprising:

an optical fiber section (81) for transporting optical signals ( $\lambda 1$ ,  $\lambda'1$ ), and extraction means (615, 616 of Figure 8) for extracting optical signals transported by the fiber section, characterized in that, to allow the use of the same section of fiber in one direction ( $\lambda 1$ ) when the network is in a normal transmission state and in the opposite direction ( $\lambda'1$ ) when the network is in a backed up transmission state, the extraction means (615, 616 of Figure 8) are of the power coupler type and are bidirectional, and in that it further comprises: switching means (6115, 6116 of Figure 10) for directing optical signals extracted by the extraction means, and control means (617) for detecting the transmission state of the network and controlling the switching means as a function of that state.

Regarding claim 12, Sharma discloses a communications node according to claim 11, characterized in that it comprises an optical gate (618, 619, 6110) controlled by the control means (617) and inserted into the fiber section (81) to pass or eliminate optical signals.

Regarding claim 13, Sharma discloses in Figures 8-10, a communications node (61-66) of a backed up ring optical telecommunications network, comprising:

an optical fiber section (81) for transporting optical signals, and insertion means (613) for inserting optical signals into the fiber section, characterized in that, to allow the use of the same section of fiber in one direction ( $\lambda 1$ ) when the network is in a normal transmission state and in the opposite direction ( $\lambda'1$ ) when the network is in a backed up transmission state, the insertion means (6119, 6120) are of the power coupler type and are bidirectional, and in that it further comprises: switching means (6117, 6118) for directing optical signals to be inserted into the fiber section toward the insertion means, and control means (617) for detecting the transmission state of the network and controlling the switching means as a function of that state.

Regarding claim 17, Sharma discloses in Figure 9 traffic concentrator (71) of a backed up ring optical telecommunications network, characterized in that, to allow the same section of fiber to be used in one direction ( $\lambda 1$ ) when the network is in a normal transmission state and in the opposite direction  $\lambda'1$ ) when the network is in a standby transmission state, it comprises: two separate sections of a first optical fiber (81, 72), switching means (A13 of Figure 27) connected to one end of each of the sections of the first fiber to inject into these two ends substantially identical optical signals

addressed to nodes of the network, switching means (A13 of Figure 27) connected to one end of each of the sections of the second fiber to receive via one of those two ends an optical signal sent by a node of the network, and control means 617 for detecting the transmission state of the network and controlling the switching means as a function of that state.

Regarding claim 18, Sharma discloses in Figure 28 traffic concentrator according to claim 17, characterized in that the switching means comprise optical switches operating two by two.

Regarding claim 19, Sharma discloses a traffic concentrator according to claim 17, characterized in that the switching means (A13 of Figure 27) comprise three-state optical switches forming a quadripole A, B, C, D and allowing optical signals to propagate between the four poles (see Figure 28A, 28B, 28C) in any of the following three propagation modes:

between the poles A and B, on the one hand, and between the poles C and D, on the other hand, corresponding to a direct propagation mode (Figure 28A);

between the poles A and C, on the one hand, and between the poles B and D, on the other hand, corresponding to a crossed propagation mode; between the poles A and D, on the one hand (Figure 28B); and

between the poles B and C, on the other hand, corresponding to a transparent propagation mode (Figure 28C).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma et al. US patent no. 5,717,795

Regarding claim 14, Sharma discloses in Figures 8-10, an amplified communications node (61-66) of a backed up ring optical telecommunications network, comprising:

at least one optical fiber section 81 for transporting optical signals, switching means (6117, 6118) for each fiber section, inserted into the associated fiber section, for directing optical signals toward the associated amplifier means, and control means (617) for detecting the transmission state of the network and controlling the switching means as a function of that state.

Sharma does not specifically disclose an amplifier means for each fiber section inserted into the associated fiber section to amplify optical signals, characterized in that, to allow the use of the same section of fiber in one direction ( $\lambda 1$ ) when the network is in a normal transmission state and in the opposite direction ( $\lambda'1$ ) when the network is in a backed up transmission state.

Since optical amplifier is well known for amplifying an optical signal and since it is also well recognized that signal degrades as it travel down through the transmission path, it would have been obvious to an artisan at the time of the invention was made to include the well known optical amplifier in the node of Sharma in order to restore the signal strength to a desirable level to obtain good signals quality.

Regarding claim 15, Sharma discloses a power coupler type extraction means (615, 616 of Figure 8) for extracting downlink optical signals transported by the fiber section of the network dedicated to transporting downlink signals.

Regarding claim 16, Sharma discloses power coupler type insertion means (6119, 6120) for inserting uplink optical signals into the fiber section of the network (6d, 6g) dedicated to transporting uplink signals.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Al-Salameh et al. U.S. Patent no. 6,317,231. Optical monitoring apparatus and method for network provisioning and maintenance
- b. Duerksen et al. U.S. Patent no. 6,307,986. Protection switching in bidirectional WDM optical communication network
- c. Beline et al. U.S. Patent no. 6,304,347. Optical power management in an optical network

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran  
04/28/2007

  
**DZUNG TRAN**  
**PRIMARY PATENT EXAMINER**